```
File  77:Conference Papers Index 1973-2002/Jul
         (c) 2002 Cambridge Sci Abs
File  35:Dissertation Abs Online 1861-2002/Aug
         (c) 2002 ProQuest Info&Learning
File 583:Gale Group Globalbase(TM) 1986-2002/Aug 31
         (c) 2002 The Gale Group
File  65:Inside Conferences 1993-2002/Sep W1
         (c) 2002 BLDSC all rts. reserv.
File   2:INSPEC 1969-2002/Sep W1
         (c) 2002 Institution of Electrical Engineers
File 233:Internet & Personal Comp. Abs. 1981-2002/Sep
         (c) 2002 Info. Today Inc.
File 474:New York Times Abs 1969-2002/Sep 02
         (c) 2002 The New York Times
File 475:Wall Street Journal Abs 1973-2002/Aug 29
         (c) 2002 The New York Times
File  99:Wilson Appl. Sci & Tech Abs 1983-2002/Jul
         (c) 2002 The HW Wilson Co.
File  95:TEME-Technology & Management 1989-2002/Sep W1
         (c) 2002 FIZ TECHNIK
File 139:EconLit 1969-2002/Aug
         (c) 2002 American Economic Association

Set     Items   Description
S1     178824   IP OR INTELLECTUAL()PROPERT? OR PATENT? ? OR TRADEMARK? ? -
             OR TRADE()DRESS OR (TRADE OR SERVICE)(1W)MARK? ? OR COPYRIGHT?
              ? OR TRADE()SECRET? ?
S2    1372881   SECURITIES OR STOCKS OR BONDS OR MUTUAL()FUNDS OR SHARES OR
              INVESTMENT? OR FINANCIAL()INSTRUMENT? OR EQUITIES OR CAPITAL
             OR FOREIGN()EXCHANGE OR FUTURES OR OPTIONS OR COMMERCIAL()PAP-
             ER OR PORTFOLIO?
S3    3236855   CALCULAT? OR SCORE? OR SCORING? OR STATISTIC? OR COMPUTATI-
             ON? OR ALGORITHM? OR VALUAT? OR GAUG? OR SCALE? OR INDEX?
S4    1591786   PRICE OR VALUE? OR WORTH
S5      11834   OPTION()PRICING OR BLACK(1W)(SCHOLES OR BOX) OR HULL(1W)WH-
             ITE OR CO()ROSS()RUBINSTEIN OR VOLATILITY(1W)(SMILE OR SKEW) -
             OR CONTINGENT()CLAIMS()ANALYSIS OR CCA
S6     239380   DATA()(BASE? OR BANK? ? OR SYSTEM? OR MAPPER OR REPOSITOR?)
              OR DATABASE OR DATABANK OR OODB OR DBMS OR RDBMS
S7          0   (S1(5N)S4)(S)(S2 AND S5 AND S6)
S8          2   (S1(5N)S4)(S)(S2 AND S6)
S9          5   (S1(5N)S4)(S)(S3 AND S6)
S10        15   S1 AND (S3(5N)S4) AND S6
S11        13   S10 NOT (S8 OR S9) NOT PD>19990317
S12         8   (S1(5N)S6) AND (S4 OR S5) AND S2
S14         0   (S1(5N)S6) AND (S4(5N)S3) AND S5
S15         3   (S1(5N)S6) AND (S4(5N)S3)
S16         1   (S1(5N)S6) AND S5
```

Reviewed FB 9/10/02.

all abstracts

8/3,K/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

5883005 INSPEC Abstract Number: B9805-6210L-073, C9805-5620W-045
Title: Convergence between public switching and the Internet
Author(s): Schoen, U.; Hamann, J.; Jugel, A.; Kurzawa, H.; Schmidt, C.
Author Affiliation: Siemens AG, Germany
Conference Title: ISS'97: World Telecommunications Congress. `Global Network Evolution: Convergence or Collision?'. Proceedings Part vol.1 p.549-60 vol.1
Publisher: Pinnacle Group, Toronto, Ont., Canada
Publication Date: 1997 Country of Publication: Canada 2 vol. (xxxiv+591+633) pp.
Material Identity Number: XX97-01480
Conference Title: Proceedings of ISS'97 International Switching Symposium
Conference Sponsor: Alcatel Canada; Bell Canada; BC Tel; Island Telphone Co.; Manitoba Telecom Serv.; et al
Conference Date: 21-26 Sept. 1997 Conference Location: Toronto, Ont., Canada
Language: English
Subfile: B C

...Abstract: frame relay, SMDS, etc.); access to data networks; IP router, RADIUS server and name server **database** ; contents server (optional), enabling telecommunications company/ISPs to become content provider. This effectively turns the...

... an Internet access point that integrates smoothly into the existing telecommunications company/OA&M/TMN. **Investment** into additional hardware is minimized and the existing subscriber line and network infrastructure is completely...

... new revenue-generating features, e.g., supplementary PSTN/ISDN services for Internet calls, voice-over- **IP** , **IP** -activated dialling and **value** -added Internet services.

9/5/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

4653781 INSPEC Abstract Number: C9406-7250C-005
Title: SUPRAPAT: a value added patent database -a personal view and vision
Author(s): Lobeck, M.A.
Journal: World Patent Information . vol.16, no.1 p.14-27
Publication Date: March 1994 Country of Publication: USA
CODEN: WPAID2 ISSN: 0172-2190
U.S. Copyright Clearance Center Code: 0172-2190/94/$6.00+.00
Language: English Document Type: Journal Paper (JP)
Treatment: Practical (P); Product Review (R)
Abstract: A short look back to the beginnings of patent documentation in industry shows that the austerity of data available in the old patent databases of the 1960s and 1970s (because of insufficient memory and disk space) still has effects on the multitude of present databases. Millions of patent records added each year may lead to frustration of many users when confronted with rising costs and search times. The resulting non-use of some databases is dangerous for patent departments and leads to diminishing revenues for database producers. This gives rise to the proposal of one and only one comprehensive logical (not necessarily physical) patent database containing extended data. Many of them are available in one or the other of the existing databases, but not all together in one file. EPO, Derwent and CA are regarded as centers of competence for bibliographic data collecting and correcting; abstracting; indexing and deep analysis, respectively. (0 Refs)
Subfile: C
Descriptors: bibliographic systems; indexing; industrial property; information services
Identifiers: SUPRAPAT; value added patent database ; patent documentation; industry; old patent databases; insufficient memory; disk space; patent records; costs; search times; extended data; EPO; Derwent; CA ; bibliographic data collecting; bibliographic data correction; abstracting ; indexing; deep analysis
Class Codes: C7250C (Bibliographic systems); C7240 (Information analysis and indexing); C7210 (Information services and centres)

9/5/2 (Item 1 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

2179723 H.W. WILSON RECORD NUMBER: BAST99051305
Mining the Web's link structure
Chakrabarti, Soumen; Dom, Byron E; Kumar, S. Ravi
Computer v. 32 no8 (Aug. 1999) p. 60-7
DOCUMENT TYPE: Feature Article ISSN: 0018-9162 LANGUAGE: English
RECORD STATUS: Corrected or revised record

ABSTRACT: The Web is a hypertext body of approximately 300 million pages that continues to grow at roughly a million pages per day. Page variation is more prodigious than the data's raw **scale** : Taken as a whole, the set of Web pages lacks a unifying structure and shows far more authoring style and content variation than that seen in traditional text-document collections. This level of complexity makes an "off-the-shelf" **database** -management and information-retrieval solution impossible. To date, **index** -based search engines for the Web have been the primary tool by which users search for information. Such engines can build giant indices that let you quickly retrieve the set of all Web pages containing a given word or string. Experienced users can make effective use of such engines for tasks that can be solved by searching for tightly constrained keywords and phrases. These search engines are, however, unsuited for a wide range of equally important tasks. In particular, a topic of any breadth will typically contain several thousand or million relevant Web pages. How then, from this sea of pages, should a search engine select the correct ones--those of most **value** to the user? **Copyright** 1999, IEEE.

DESCRIPTORS: Database software; Hyperlinks; Relevance feedback; Data mining;

9/5/3 (Item 2 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

2073353 H.W. WILSON RECORD NUMBER: BAST93036454
Comparing grapes and watermelons
AUGMENTED TITLE: patent classifications
Simmons, Edlyn S; Lambert, Nancy
Chemtech v. 23 (June 1993) p. 51-9
DOCUMENT TYPE: Feature Article ISSN: 0009-2703 LANGUAGE: English
RECORD STATUS: Corrected or revised record

ABSTRACT: The shortcomings of **statistical** analysis should be considered when examining patent trends. Patent **statistics** are used to monitor the levels of innovative activity and the direction of research in competitive companies. Patent experts warn of the need to compare like with like when conducting a **statistical** analysis of patents. Patents can vary in the type of invention claimed, in their scope, and in the commercial value of the invention. Depending upon the market for the product, **patents** can also vary in their **value** . When analyzing documents retrieved from a **database** , granted patents should be compared only with other granted ones and not with published applications. Many products are protected using patents licenses from others and these are among the most valuable patents of all. **Statistics** can be useful if the variety of patent law and patent databases is not overlooked. .
DESCRIPTORS: Patents--Licensing; Patent laws and regulations--International aspects; Patent databases;

9/5/4 (Item 3 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

1657259 H.W. WILSON RECORD NUMBER: BAST98017501
Statistical analysis of the ASME KIc database
Sokolov, M. A;
Journal of Pressure Vessel Technology v. 120 (Feb. '98) p. 24-8
DOCUMENT TYPE: Feature Article ISSN: 0094-9930 LANGUAGE: English
RECORD STATUS: Corrected or revised record

ABSTRACT: The American Society of Mechanical Engineers (ASME) KIc curve is a function of test temperature (T) normalized to a reference nil-ductility temperature, RTNDT, namely, T - RTNDT. It was constructed as the lower boundary to the available KIc **database** . Being a lower bound to the unique but limited **database** , the ASME KIc curve concept does not discuss probability matters. However, a continuing evolution of fracture mechanics advances has led to employment of the Weibull distribution function to model the scatter of fracture toughness values in the transition range. The Weibull **statistic** /master curve approach was applied to analyze the current ASME KIc **database** . It is shown that the Weibull distribution function models the scatter in KIc data from different materials very well, while the temperature dependence is described by the master curve. Probabilistic-based tolerance-hound curves are suggested to describe lower-bound KIc **values** . **Copyright** 1998, ASME.
DESCRIPTORS: Fracture toughness; Weibull distribution function; Mechanical engineering databases;

9/5/5 (Item 4 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

1102876 H.W. WILSON RECORD NUMBER: BAST93034986

Statistical analysis of the dynamic cutting coefficients and machine tool stability

El Baradie, M. A;

Journal of Engineering for Industry v. 115 (May '93) p. 205-15
DOCUMENT TYPE: Feature Article ISSN: 0022-0817 LANGUAGE: English
RECORD STATUS: New record

ABSTRACT: Machine tool chatter is a **statistical** phenomenon since it is dependent on the interaction of two **statistical** quantities, these being the dynamic characteristics of the machine tool structure and the transfer function of the cutting process. In this paper, a generalized **statistical** theory of machine tool chatter has been developed. This takes into consideration the scatter of the dynamic data of the machine structure and/or that of the cutting process. The dynamics of the cutting process have been represented by a mathematical model which derives the cutting coefficients from steady state cutting **data , based** on a nondimensional analysis of the cutting process. The dynamics of the machine tool structure and the cutting process, being the input data to the theory, were determined experimentally. The predicted stability charts were plotted to take into consideration the scatter in the machine structure dynamics and/or the cutting process. At the threshold of stability, the **statistical** variations due to the dynamic cutting coefficients amount to [plus or minus]29.5 percent at 99 percent confidence level, while the **statistical** variations due to the structure dynamics amount to [plus or minus]4.5 percent only, at the same confidence level. Therefore, the threshold of stability can be specified only in terms of mean **values** with confidence limits. **Copyright** 1993, ASME.

DESCRIPTORS: Metal cutting; Machine tools--Vibration;

11/5/1 (Item 1 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)

04260297
PROPERTY PRICES EXPECTED TO FALL
UK - PROPERTY PRICES EXPECTED TO FALL
Financial Times (C) 1991 (FT) 10 May 1991 p25

United Kingdom: the decline in commercial property value is expected to bottom out next spring (1992), according to the prices posted in the first day of the London Futures and Options Exchange property futures market. Prices indicated that the Investment Property **Databank** capital **value index** would fall 2.5 per cent between March 1991 and March 1991, but then rise steadily. Volume was three-quarters of that expected. There was little business in the commercial rental values, house price and residential mortgage rate contracts. By the end of the day contracts valued at GBP 15m had changed hands. Business was concentrated in the commercial value contracts, which accounted for 126 of the 152 lots traded. Most of the activity was in the contracts relating to the coming year. (Abstract. **Copyright** The Financial Times Limited 1991) **

PRODUCT: Commercial Property (6500CP);
EVENT: MARKET & INDUSTRY NEWS (60);
COUNTRY: United Kingdom (4UK); OECD Europe (415); NATO Countries (420); South East Asia Treaty Organisation (913);

11/5/2 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

6404806 INSPEC Abstract Number: C1999-12-5260B-398
Title: Blind digital watermarking for cartoon and map images
Author(s): Po-Chyi Su; Jay Kuo, C.-C.; Houng-Jyh Mike Wang
Author Affiliation: Dept. of Electr. Eng. Syst., Univ. of Southern California, Los Angeles, CA, USA
Journal: Proceedings of the SPIE - The International Society for Optical Engineering Conference Title: Proc. SPIE - Int. Soc. Opt. Eng. (USA) vol.3657 p.296-306
Publisher: SPIE-Int. Soc. Opt. Eng,
Publication Date: 1999 Country of Publication: USA
CODEN: PSISDG ISSN: 0277-786X
SICI: 0277-786X(1999)3657L.296:BDWC;1-S
Material Identity Number: C574-1999-158
U.S. Copyright Clearance Center Code: 0277-786X/99/$10.00
Conference Title: Security and Watermarking of Multimedia Contents
Conference Sponsor: IS&T; SPIE
Conference Date: 25-27 Jan. 1999 Conference Location: San Jose, CA, USA
Language: English Document Type: Conference Paper (PA); Journal Paper (JP)
Treatment: Practical (P)
Abstract: Cartoon/map images are synthetic graphics without complicated color and texture variation, which makes the embedding of invisible and robust digital watermarks difficult. In this research, we propose a wavelet-based, threshold-adaptive watermarking scheme (TAWS) which can embed invisible robust watermarks into various kinds of graphical images. TAWS selects significant subbands and inserts watermarks in selected significant coefficients. The inserted watermarks are adaptively **scaled** by different threshold **values** to maintain the perceptual integrity of watermarked images and achieve robustness against compression and signal processing attacks. Another major contribution of this work is that the cast watermark is retrieved without the knowledge of the original image. The so-called blind watermark retrieval technique is very useful in managing a large cartoon, **trademark** and digital map databases. Finally, a company logo that clearly identifies the **copyright** information can be

embedded in cartoon and map images without serious perceptual loss. Experimental results are given to demonstrate the superior performance of TAWS. (15 Refs)
Subfile: C
Descriptors: copy protection; image processing; image retrieval; industrial property; security of data; visual databases; wavelet transforms
Identifiers: cartoon images; map images; blind digital watermarking; synthetic graphics; wavelet-based threshold-adaptive watermarking scheme; robust digital watermarks; invisible digital watermarks; graphical images; significant subbands; significant coefficients; perceptual integrity; compression; signal processing attacks; cast watermark; large cartoon **database** management; large **trademark database** management; large digital map **database** management; company logo; **copyright** information identification
Class Codes: C5260B (Computer vision and image processing techniques); C7250R (Information retrieval techniques); C6160S (Spatial and pictorial databases); C0230 (Economic, social and political aspects of computing)

11/5/3 (Item 2 from file: 2)
DIALOG(R)File 2:INSPEC

6148310 INSPEC Abstract Number: C1999-03-7210-006
Title: Patent **information: are the traditional suppliers as doomed as the dinosaurs?**
Author(s): Schoch-Grubler, U.
Author Affiliation: BASF AG, Ludwigshafen, Germany
Journal: World Patent Information vol.20, no.1 p.21-7
Publisher: Elsevier,
Publication Date: March 1998 Country of Publication: USA
CODEN: WPAID2 ISSN: 0172-2190
SICI: 0172-2190(199803)20:1L.21:PITS;1-N
Material Identity Number: A914-1999-001
U.S. Copyright Clearance Center Code: 0172-2190/98/$19.00+0.00
Document Number: S0172-2190(98)00009-X
Language: English Document Type: Journal Paper (JP)
Treatment: General, Review (G)
Abstract: The author considers some of the issues in **patent** information which confront industry today-focusing particularly on the chemical industry. What are our real problems and how can we tackle them? She discusses developments such as the Internet and intranets, **indexing** and **value** -added databases, Markush files, and document delivery. (0 Refs)
Subfile: C
Descriptors: chemical industry; **database** indexing; document delivery; information resources; Internet; intranets; **patents**
Identifiers: **patent** information; chemical industry; Internet; intranets ; indexing; value-added databases; Markush files; document delivery; information suppliers
Class Codes: C7210 (Information services and centres); C5620W (Other computer networks); C7220 (Generation, dissemination, and use of information); C7240 (Information analysis and indexing); C7160 (Manufacturing and industrial administration); C5620L (Local area networks)

11/5/4 (Item 3 from file: 2)
DIALOG(R)File 2:INSPEC

5520054 INSPEC Abstract Number: C9704-6160Z-011
Title: Indexing values **of time sequences**
Author(s): Ling Lin; Risch, T.; Skold, M.; Badal, D.
Author Affiliation: Dept. of Comput. Sci., Linkoping Univ., Sweden
Conference Title: Proceedings of the 1996 ACM CIKM. International Conference on Information and Knowledge Management p.223-32
Editor(s): Barker, K.; Ozsu, M.T.

Publisher: ACM, New York, NY, USA
Publication Date: 1996 Country of Publication: USA xi+344 pp.
ISBN: 0 89791 873 8 Material Identity Number: XX96-02903
U.S. Copyright Clearance Center Code: 0 89791 873 8/96/11.$3.50
Conference Title: Proceedings of 5th International Conference on Information and Knowledge Management
Conference Sponsor: ACM; NASA; Bell Commun.; NSF; AAAI; IEEE Comput. Soc. ; et al
Conference Date: 12-16 Nov. 1996 Conference Location: Rockville, MD, USA
Language: English Document Type: Conference Paper (PA)
Treatment: Practical (P); Theoretical (T)
Abstract: A time sequence is a discrete sequence of values, e.g., temperature measurements, varying over time. Conventional indexes for time sequences are built on the time domain and cannot deal with inverse queries on a time sequence (i.e. computing the times when the values satisfy some conditions). To process an inverse query the entire time sequence has to be scanned. This paper presents a dynamic **indexing** technique on the **value** domain for large time sequences which can be implemented using regular ordered indexing techniques (e.g. B-trees). Our index (termed **IP** -index) dramatically improves the query processing time of inverse queries compared to linear scanning. For periodic time sequences that have a limited range and precision on their value domain (most time sequences have this property), the **IP** -index has an upper bound for insertion time and search time. (23 Refs)
Subfile: C
Descriptors: **database** theory; indexing; query processing; temporal databases; tree data structures
Identifiers: time sequences; discrete sequence; indexes; time domain; inverse queries; dynamic indexing technique; large time sequences; B-trees; **IP** -index; query processing time; linear scanning; insertion time; search time; temporal **database** applications; real-time databases
Class Codes: C6160Z (Other DBMS); C6120 (File organisation); C4250 (Database theory)

11/5/5 (Item 4 from file: 2)
DIALOG(R)File 2:INSPEC

02252971 INSPEC Abstract Number: C84025080
Title: Japan robotics research for the next generation
Author(s): Umetani, Y.; Yonemoto, K.
Author Affiliation: Tokyo Inst. of Technol., Tokyo, Japan
Conference Title: Proceedings of the 1983 International Conference on Advanced Robotics p.3-20 vol.1
Publisher: Japan Ind. Robot Assoc, Tokyo, Japan
Publication Date: 1983 Country of Publication: Japan 2 vol. (424+42) pp.
Conference Date: 12-13 Sept. 1983 Conference Location: Tokyo, Japan
Language: English Document Type: Conference Paper (PA)
Treatment: General, Review (G)
Abstract: This paper discusses those study themes considered essential in responding to the expectations that are most likely to be generated by Japanese society in regard to robots in the coming one or two decades. First, for the purpose of understanding the current structure and status of research and development concerning robotics, statistical **data based** on the responses obtained from universities and national and public research institutes are shown together with an illustration of the recent **patent** trends related to industrial robots. Then, an overview on the results of forecasts regarding robot technology by governmental bodies is presented in an effort to predict the technological as well as social needs surrounding robots. Lastly, tasks of high contribution **value** for society requiring large- **scale** research and development systems is both identified and clarified. (5 Refs)
Subfile: C
Descriptors: industrial robots

Identifiers: robotics research; research and development; **patent** ; industrial robots; robot technology
Class Codes: C3355 (Manufacturing processes)

11/5/6 (Item 1 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

1934279 H.W. WILSON RECORD NUMBER: BAST94044394
Correlations between values of daily horizontal beam and global radiation for Beer Sheva, Israel
Ianetz, A; Kudish, A. I
Energy (Oxford, England) v. 19 (July 1994) p. 751-64
DOCUMENT TYPE: Feature Article ISSN: 0360-5442 LANGUAGE: English
RECORD STATUS: Corrected or revised record

ABSTRACT: Individual monthly and seasonal correlations have been developed for Beer Sheva, Israel, for **calculating** daily **values** of horizontal beam radiation from measured global radiation via the clearness index. The **data base** comprises normal incidence and global radiation measurements. The dependent variable in the correlations was either the beam fraction or the beam transmittance; the latter is defined as the ratio of the horizontal-beam to the extraterrestrial radiation. Three different correlation formats were tested, based on the linear beam fraction and the exponential and linear beam transmittances. The most recent 12 months of data were reserved to validate the empirical regression correlations and to compare their predictive utilities. The results of our analysis for this site showed that replacing the beam fraction with beam transmittance as the dependent variable did not improve the predictive capability of the correlations significantly. The linear beam-transmittance correlations were somewhat inferior to the usual linear beam fraction format. Also, the performance of the exponential-beam transmittance relative to the linear-beam-fraction correlations was erratic (viz. superior for some months and inferior for others). The predictive capabilities for the seasonal correlations were comparable to those for the individual monthly correlations. The correlations for both the linear-beam-fraction and exponential-beam-transmittance formats varied significantly throughout the year, with values of the average monthly coefficients of variation varying from <10% to >20%.

DESCRIPTORS: Meteorology--Israel; Meteorology--Statistical methods; Solar radiation; Urban climatology;

11/5/7 (Item 2 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

1532591 H.W. WILSON RECORD NUMBER: BAST95042932
Estimation of hydroxyl radical reaction rate constants for gas-phase organic compounds using a structure-reactivity relationship: an update
Kwok, Eric S. C; Atkinson, Roger
Atmospheric Environment (Oxford, England) v. 29 no14 (July '95) p. 1685-95
DOCUMENT TYPE: Feature Article ISSN: 1352-2310 LANGUAGE: English
RECORD STATUS: Corrected or revised record

ABSTRACT: The structure-reactivity approach proposed by Atkinson (1986, Chem. Rev. 86, 69-201) and extended by Atkinson (1987, Int. J. Chem. Kinet. 19, 799-828) for the calculation of rate constants for the gas-phase reactions of the OH radical with organic compounds has been re-investigated using the presently available **database** . Substituent group factors for several new groups are derived, including those for fluorinated ethers. Using a large fraction of the available **database** to derive the parameters needed to calculate the OH radical reaction rate constants, the 298 K rate constants of [similar]90% of approximately 485 organic compounds are predicted to within a factor of 2 of the experimental **values** . Disagreements between **calculated** and experimental rate constants most

commonly occur for halogen-containing compounds, and in particular for haloalkanes, haloalkenes, and halogenated ethers. Disagreements also arise for ethers, especially for polyethers and cycloethers. The present estimation technique is reasonably reliable when used within the **database** used in its derivation, but extrapolation to organic compounds outside of this **database** results in a lack of assurance of its reliability, and its use for organic compounds, which belong to classes other than those used in its development, is discouraged. **Copyright** 1995, Pergamon Press Ltd.

DESCRIPTORS: Atmospheric hydroxyl radicals; Air pollution--Statistical methods; Abstraction reactions--Kinetics;

11/5/8 (Item 3 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

1395215 H.W. WILSON RECORD NUMBER: BAST96056414
Attomole protein characterization by capillary electrophoresis-mass spectrometry
Valaskovic, Gary A; Kelleher, Neil L; McLafferty, Fred W
Science v. 273 (Aug. 30 '96) p. 1199-202
DOCUMENT TYPE: Feature Article ISSN: 0036-8075 LANGUAGE: English
RECORD STATUS: Corrected or revised record

ABSTRACT: Electrospray ionization with an ultralow flow rate ([less than or equal]4 nanoliters per minute) was used to directly couple capillary electrophoresis with tandem mass spectrometry for the analysis and identification of biomolecules in mixtures. A Fourier transform mass spectrometer provided full spectra ([not greater than]30 kilodaltons) at a resolving power of [approximately equal to]60,000 for injections of 0.7 [times] 10-18 to 3 [times] 10-18 mole of 8- to 29-kilodalton proteins with errors of [not less than]1 dalton in molecular mass. Using a crude isolate from human blood, a **value** of 28,780.6 daltons (**calculated** , 28,780.4 daltons) was measured for carbonic anhydrase, representing 1 percent by weight of the protein in a single red blood cell. Dissociation of molecular ions from 9 [times] 10-18 mole of carbonic anhydrase gave nine sequence-specific fragment ions, more data than required for unique retrieval of this enzyme from the protein **database** . **Copyright** 1996 by the AAAS.

DESCRIPTORS: Proteins--Analysis; Capillary electrophoresis; Mass spectrometry;

11/5/9 (Item 4 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

1363163 H.W. WILSON RECORD NUMBER: BAST96037251
BAC-MP4 predictions of thermochemical data for C1 and C2 stable and radical hydrofluorocarbons and oxidized hydrofluorocarbons
Zachariah, M. R; Westmoreland, P. R; Burgess, D. R Jr
The Journal of Physical Chemistry v. 100 (May 23 '96) p. 8737-47
DOCUMENT TYPE: Feature Article ISSN: 0022-3654 LANGUAGE: English
RECORD STATUS: Corrected or revised record

ABSTRACT: An ab initio bond additivity corrected quantum chemistry procedure has been applied to the development of a **data base** for thermochemistry of C/H/F/O species. This information has been used to construct a chemical kinetic mechanism for the prediction of the behavior of fluorocarbons as flame suppressants, with clear applications to plasma and atmospheric chemistry as well. Bond additivity corrected (BAC) Moller-Plesset fourth-order perturbation theory (MP4) calculations have been performed to obtain a large body of thermochemical data on about 100 closed and open shelled fluorocarbon species. For about 70 of these species, literature values for enthalpies of formation were available for comparison to the **calculated values** . The average difference between

the **calculated** and literature **values** was about 9 kJ/mol. The results indicate that the BAC-MP4 procedure can provide energies that are comparable in accuracy to most experimentally derived **values** , at lower **computational** costs relative to other more computationally expensive ab initio molecular orbital methods. This work provides a substantial **data base** of thermochemical data for fluorinated hydrocarbons constructed in a self-consistent manner. **Copyright** 1996, American Chemical Society.

DESCRIPTORS: Molecular orbital methods; Fluorocarbons--Molecular structure ; Thermochemistry--Mathematical models;

11/5/10 (Item 5 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

1287154 H.W. WILSON RECORD NUMBER: BAST96009328
Geometric parameters in nucleic acids: nitrogenous bases
Clowney, Lester; Jain, Shri C; Srinivasan, A. R
Journal of the American Chemical Society v. 118 (Jan. 24 '96) p. 509-18
DOCUMENT TYPE: Feature Article ISSN: 0002-7863 LANGUAGE: English
RECORD STATUS: New record

ABSTRACT: We present estimates of the bond-length and bond-angle parameters for the nitrogenous base side groups of nucleic acids. These **values** are the result of a **statistical** survey of small molecules in the Cambridge Structural **Database** for which high-resolution X-ray and neutron crystal structures are available. The statistics include arithmetic means and standard deviations for the different samples, as well as comparisons of the population distributions for sugar- and non-sugar-derivatized bases. These accumulated data provide appropriate target values for refinements of oligonucleotide structures, as well as sets of standard atomic coordinates for the five common bases. **Copyright** 1996, American Chemical Society.

DESCRIPTORS: Chemistry--Statistical methods; Nucleic acids--Crystallography; Nitrogen compounds--Molecular structure;

11/5/11 (Item 6 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

1265264 H.W. WILSON RECORD NUMBER: BAST95061037
Hydrogen atom bond increments for calculation of thermodynamic properties of hydrocarbon radical species
Lay, Tsan H; Bozzelli, Joseph W; Dean, Anthony M
The Journal of Physical Chemistry v. 99 (Sept. 28 '95) p. 14514-27
DOCUMENT TYPE: Feature Article ISSN: 0022-3654 LANGUAGE: English
RECORD STATUS: New record

ABSTRACT: Hydrogen atom bond increments (HBI) are defined and a **data base** is derived for accurately estimating DHf0298, S0298, and Cp(T) (300 [less than or equal] T/K [less than or equal] 1500) on generic classes of hydrocarbon (HC) radical species relevant to combustion and atmospheric chemistry, using these thermodynamic property increments. The HBI group technique is based on known thermodynamic properties of the parent molecule and calculated changes that occur upon formation of a radical via loss of a H atom. The HBI approach incorporates (i) evaluated literature bond energies, (ii) calculated entropy and heat capacity increments resulting from loss and/or change in vibrational frequencies including frequencies corresponding to inversion of the radical center, (iii) increments from changes in barriers to internal rotation, and (iv) spin degeneracy. Twenty five HBI groups corresponding to alkyl (primary, secondary, and tertiary), vinyl, allenic, allylic, benzyl, acetylenic, and other conjugated hydrocarbon radicals are defined, and their group **values** are **calculated** . The HBI groups, when coupled with thermodynamic properties of the appropriate "parent" molecule, yield accurate thermodynamic properties for the respective radicals. **Copyright** 1995, American Chemical Society.

DESCRIPTORS: Thermodynamics--Mathematical models; Bond energy; Hydrocarbons; Free radicals (Chemistry);

11/5/12 (Item 7 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

1170738 H.W. WILSON RECORD NUMBER: BAST94039341
Theoretical calculation of the static dielectric constant of water at high temperatures and pressures
Goldman, Saul; Joslin, Chris; Wasserman, Evgeny A
The Journal of Physical Chemistry v. 98 (June 16 '94) p. 6231-3
DOCUMENT TYPE: Feature Article ISSN: 0022-3654 LANGUAGE: English
RECORD STATUS: New record

ABSTRACT: We report a computationally efficient method for the quantitative prediction of the static dielectric constant (e) of water at high temperatures and pressures. Values of e in this regime are needed in geochemistry for the prediction of ionic solubilities in hydrothermal fluids. The method involves the application of a recently derived perturbation theory to the SPCE model of water. The experimental **database** for e in this regime is sparse, and the alternative computational procedure--a direct simulation--is 1-4 orders of magnitude slower than the method we present. We find that the **calculation** provides quantitatively accurate **values** of e for water provided y [less than or equal] 2.4, where y is the "dipolar strength function" (=(4p/9)m2r/kT). **Copyright** 1994, American Chemical Society.
DESCRIPTORS: Dielectric constants--Mathematical models; Water--Dielectric properties; Perturbation theory;

11/5/13 (Item 8 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

1153690 H.W. WILSON RECORD NUMBER: BAST94022258
Predictive force-field calculations for the equilibrium dimerization of isoprene
Kar, Mangalya; Lenz, Terry G; Vaughan, John D
The Journal of Physical Chemistry v. 98 (Mar. 3 '94) p. 2489-93
DOCUMENT TYPE: Feature Article ISSN: 0022-3654 LANGUAGE: English
RECORD STATUS: New record

ABSTRACT: The Diels-Alder dimerization of isoprene is an important reaction; dipentene (or racemic limonene), one of the products formed in this reaction, has major applications in the manufacture of polymers and adhesives. Dipentene also has various uses in the food and pharmaceutical industries. In the present work, the QCFF force field program was used to calculate gas-phase thermodynamic properties of the monomer (isoprene) and the dimers 1-methyl-5-(1-methylethenyl)cyclohexene (diprene) and 1-methyl-4-(1-methylethenyl)cyclohexene (dipentene) for the temperature range 298.15-1000 K. These QCFF- **calculated** thermodynamic **values** were compared, when possible, with corresponding values obtained experimentally or from other force field programs, and the agreement was found to be satisfactory. The QCFF values were further used to derive gas-phase equilibrium properties--DH0, DS0, DG0, and Kp--for the isoprene dimerization reaction at various temperatures. These computational results suggest that, based upon thermodynamics, diprene and dipentene are about equally favored dimerization products of isoprene and that reported experimental data reflect kinetic control of dipentene formation at lower temperatures. The equilibrium thermodynamics data for the isoprene dimerization reaction presented in this paper are felt to be sufficiently reliable that they can be utilized in the absence of any additional experimental data; the present work thus illustrates the power of predictive thermodynamic computational techniques in extending the thermochemical **database** . **Copyright** 1994, American Chemical Society.

DESCRIPTORS: Diels-Alder reaction; Isoprene; Quantum chemistry;

12/5/1 (Item 1 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)

09748009
EMC Files Lawsuit Against Hitachi, Alleging Software Patent Violatio\
US: EMC SUES HITACHI OVER SOFTWARE PATENT BREACH
Wall Street Journal (WSJ) 15 Apr 2002
Language: ENGLISH

After supposedly four years of settlement negotiations with one of its leading competitors Hitachi, EMC has filed a lawsuit with the US International Trade Commission and the US District Court. It claims that the Japanese company's data-storage arm Hitachi **Data Systems** , has violated **patent** rights by incorporating software based on EMC's SRDF and TimeFinder designs in its imported equipment. This software accounted for more than US$ 500mn of EMC's booked sales in 2001. The company is relying more on software sales for growth after profit margins on hardware sales deteriorate due to data-storage company **price** wars which have seen costs cut by as much as 60%. EMC **shares** rose US$ 0.40 to US$ 10.14 on 12 April 2002, far from 52-week high US$ 45.96.

COMPANY: EMC; HITACHI; HITACHI DATA SYSTEMS

PRODUCT: Database Management Software (7372DB);
EVENT: Patents & Copyrights (37); Law & Order (98);
COUNTRY: United States (1USA);

12/5/2 (Item 2 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)

09746428
EMC Files Lawsuit Against Hitachi, Alleging Software Patent Violatio\
US: EMC sues Hitachi over software patent breach
Wall Street Journal (WSJ) 15 Apr '2002
Language: ENGLISH

After supposedly four years of settlement negotiations with one of its leading competitors Hitachi, EMC has filed a lawsuit with the US International Trade Commission and the US District Court. It claims that the Japanese company's data-storage arm Hitachi **Data Systems** , has violated **patent** rights by incorporating software based on EMC's SRDF and TimeFinder designs in its imported equipment. This software accounted for more than US$ 500mn of EMC's booked sales in 2001. The company is relying more on software sales for growth after profit margins on hardware sales deteriorate due to data-storage company **price** wars which have seen costs cut by as much as 60%. EMC **shares** rose US$ 0.40 to US$ 10.14 on 12 April 2002, far from 52-week high US$ 45.96.

COMPANY: EMC; HITACHI; HITACHI DATA SYSTEMS

PRODUCT: Database Management Software (7372DB);
EVENT: Patents & Copyrights (37); Law & Order (98);
COUNTRY: United States (1USA);

12/5/3 (Item 3 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)

06565453
Compter database rules adopted
EU: NEW **DATABASE** **COPYRIGHT** REGULATIONS
Financial Times (FT) 02 Jan 1998 p.4
Language: ENGLISH

The European Union has introduced the EC Database Directive designed to protect the **investment** in time and money that goes into creating computer databases. Protection is limited to databases where the author's own intellect has created the selection and arrangement, but will guard against unauthorised extraction or reuse of database contents. There are about 350 database companies in the UK market, which is **worth** up to GBt 10bn.

PRODUCT: Databases (7375DA);
EVENT: National Government Economics (94);
COUNTRY: European Community (4EC);

12/5/4 (Item 4 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)

02828005
REUTERS OFFERS HISTORICAL DATA SERVICE
UK - REUTERS OFFERS HISTORICAL DATA SERVICE
Financial Technology International Bulletin (FTIB) 0 June 1989 p9

Reuters now offers back offices a historical data service. Based on its existing 'Textline' and **IP** Sharp's numeric **database** (which now includes the Eurobond **price** service), the service will store real time news and **price** data, including texts of annual reports for 1k quoted firms in the UK. Supporting software is also available to assist communications through workstations or PCs. Dealers, too, will be able to access the information via the existing Reuters Integrated Data Network (IDN). They will also be able to obtain financial and commercial data on 17k quoted international **securities** through the Reuters Instrument Code (RIC).

PRODUCT: Nonferrous Wire Drawing (3357); Financial Service Information Prods (7375FN); Computer Services (COSV);
EVENT: PRODUCTS, PROCESSES & SERVICES (30);
COUNTRY: United Kingdom (4UK); OECD Europe (415); NATO Countries (420); South East Asia Treaty Organisation (913);

12/5/5 (Item 5 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)

02106201
REVIEW OF INTERNATIONAL COMPANY DATA BASES
US - REVIEW OF INTERNATIONAL COMPANY DATA BASES
Online Finance (OLF) 0 August 1988 p7

A 3-page article reviews the availability of international company databases in US. The services covered are: Copmark containing financial profiles of more than 9k publicly- held and 35k private corporations. The database is produced by Citishare and Standard & Poor and includes SIC codes. Corporate Affiliations, produced by National Register Publishing and on Dialog, contains financial and descriptive data on over 42.7k companies. Dun's Electronic Yellow Pages-Construction Directory is on Dialog and offers descriptive and mailing information on more than 622k construction agencies and contractors. Dun's Electronic Yellow Pages-Financial Services Directory consists of descriptive and mailing information on over 411k financial services providers in US. Dun's Electronic Yellow Pages offers basic descriptions of manufacturers, retailers, wholesalers, services and professionals. Dun's Market Identifier includes up-to-date information on 2 mil private and public companies with 10 or more employees or sales over USDlr1 mil. Duns' 'The Reference Book of Corporate Management' includes Bibliographic information on around 78k executives. Dun & Bradstreet's International Directory contains information on more than 160k private and public US companies with net **value** over USDlr500k. Disclosure Online contains information on some 12k publicly-owned companies filing information with **Securities** and Exchange Commission. The **database** is

provided by **IP** Sharp, ADP, Mead, Dialog, Dow Jones, Compuserv, VU/Text, Warner and Quotron. MBenet has references to more than 20k businesses certified by the National Minority Supply Development Council as minority-owned. Moody's Corporate Profile has information on over 3.6k publicly-held US companies and is on Dialog. PTS Annual Reports Abstracts produced by Predicasts contains information on more than 40k companies. It is distributed on Data-star, Dialog and BRS. Spectrum Ownership Profiles of CDA **Investment** Technologies offers ownership information on 6k publicly-held corporations. Standard & Poor's General Information Profile contains descriptive information on more than 3k major US corporations. S&P also offers Register-Corporate database with descriptive information on around 45k corporations. The Thomas Register on Dialog gives information on 123k US manufacturers and providers of services. The database has more than 50k product classifications and 103k **trade marks** or brands. The Trinet Company **Database** provides information on around 250k manufacturing and non-manufacturing companies with more than 20 employees.

PRODUCT: Directories (7375DC); Computer Services (COSV);
EVENT: MARKET & INDUSTRY NEWS (60);
COUNTRY: Earth - Planet (0W); United States (1USA); NATO Countries (420);
South East Asia Treaty Organisation (913);

12/5/6 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

6355091 INSPEC Abstract Number: C1999-10-7220-004
Title: Europe in the pole position of global patent information
Author(s): Schmiemann, M.
Author Affiliation: Eur. Commission Innovation Prog., Luxembourg
Journal: World Patent Information vol.20, no.3-4 p.167-9
Publisher: Elsevier,
Publication Date: Sept.-Dec. 1998 Country of Publication: UK
CODEN: WPAID2 ISSN: 0172-2190
SICI: 0172-2190(199809/12)20:3/4L.167:EPPG;1-Q
Material Identity Number: H383-1999-001
U.S. Copyright Clearance Center Code: 0172-2190/98/$19.00
Language: English Document Type: Journal Paper (JP)
Treatment: General, Review (G)
Abstract: Patent databases can be a paramount resource of technical information for researchers and engineers alike. But Europe's innovating enterprises do not seem to be sufficiently aware of this resource. The European Commission is legally obliged to remove obstacles for the free access to information in the public domain. While both the United States and the Japanese governments have made available patent information on the Internet free of charge, Europe is as of yet lacking such access **options** (see Editor's note). A new initiative by the European Patent Organisation, accompanied by the European Commission's "IPR Helpdesk" project, is starting to remedy this situation. The dimension of the planned measure will put Europe in the pole position of global patent information, while leaving sufficient room for added **value** offers by commercial providers. (14 Refs)
Subfile: C
Descriptors: engineering information systems; information dissemination; information resources; information use; patents
Identifiers: world significance; Europe; patent information; global data; patents; copyright; **patent database** ; technical information; data source ; data resource; European Commission; information access; public domain; European Patent Organisation; IPR Helpdesk
Class Codes: C7220 (Generation, dissemination, and use of information)

12/5/7 (Item 1 from file: 233)
DIALOG(R)File 233:Internet & Personal Comp. Abs.

00648756 01EW11-009

Searching for revenues in bright ideas -- Research tools making patent data more accessible and understandable

Carlson, Caron

eWeek , November 5, 2001 , v18 n43 p23, 1 Page(s)

ISSN: 0740-1604

Languages: English

Document Type: Articles, News & Columns

Geographic Location: United States

Discusses how some enterprises can find profit opportunities in existing patents. Notes that managing intellectual property (IP) effectively can increase related revenue by 50 percent over three years. Says that one way to eke revenues out of intellectual **capital** is to make the information readily available and readily understandable to more individuals within an organization. Indicates that traditionally, patents were the purview of an enterprise's legal division, but today, divisions as far-flung as marketing and human resources are finding **value** in patent data. Mentions that two trends among IP service vendors are extending the accessibility of **IP** data: **IP** **database** providers are making research tools easier to use, and more **database** providers are moving into the **IP** management software business to provide sophisticated analysis and collaboration tools. (NAR)

Descriptors: **Patent** ; **Intellectual Property** ; **Finance** s; Law; **Database** ; Collaboration

12/5/8 (Item 1 from file: 99)

DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

2075413 H.W. WILSON RECORD NUMBER: BAST96050566

A new patent search tool for the Internet: QPAT US

Lambert, Nancy;

Database (Weston, Conn.) v. 19 (Aug./Sept. 1996) p. 56-8+

DOCUMENT TYPE: Feature Article ISSN: 0162-4105 LANGUAGE: English

RECORD STATUS: Corrected or revised record

ABSTRACT: Internet patent search resources took a big step forward with the introduction of QPATUS, QuestelOrbit's new **database** of full-text U.S. **patents** . Although this 110GB **database** is not free, subscriptions are priced competitively: unlimited use for $1995/year for the first license (password), lower prices for second and subsequent licenses, and a half-**price** first license for nonprofit and academic organizations. QPATUS was created to be all things to all users. Novices and end users can go to the main search page, input a natural-language query, and browse through patent titles that the search generates, 50 at a time. Meanwhile, experienced patent searchers can take advantage of some fairly sophisticated search and display **options** . A review of the QPATUS database is presented.

DESCRIPTORS: Full text databases; Patent databases; United States--Patent and Trademark Office;

15/5/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

6404806 INSPEC Abstract Number: C1999-12-5260B-398
Title: Blind digital watermarking for cartoon and map images
Author(s): Po-Chyi Su; Jay Kuo, C.-C.; Houng-Jyh Mike Wang
Author Affiliation: Dept. of Electr. Eng. Syst., Univ. of Southern California, Los Angeles, CA, USA
Journal: Proceedings of the SPIE - The International Society for Optical Engineering Conference Title: Proc. SPIE - Int. Soc. Opt. Eng. (USA) vol.3657 p.296-306
Publisher: SPIE-Int. Soc. Opt. Eng,
Publication Date: 1999 Country of Publication: USA
CODEN: PSISDG ISSN: 0277-786X
SICI: 0277-786X(1999)3657L.296:BDWC;1-S
Material Identity Number: C574-1999-158
U.S. Copyright Clearance Center Code: 0277-786X/99/$10.00
Conference Title: Security and Watermarking of Multimedia Contents
Conference Sponsor: IS&T; SPIE
Conference Date: 25-27 Jan. 1999 Conference Location: San Jose, CA, USA
Language: English Document Type: Conference Paper (PA); Journal Paper (JP)
Treatment: Practical (P)
Abstract: Cartoon/map images are synthetic graphics without complicated color and texture variation, which makes the embedding of invisible and robust digital watermarks difficult. In this research, we propose a wavelet-based, threshold-adaptive watermarking scheme (TAWS) which can embed invisible robust watermarks into various kinds of graphical images. TAWS selects significant subbands and inserts watermarks in selected significant coefficients. The inserted watermarks are adaptively **scaled** by different threshold **values** to maintain the perceptual integrity of watermarked images and achieve robustness against compression and signal processing attacks. Another major contribution of this work is that the cast watermark is retrieved without the knowledge of the original image. The so-called blind watermark retrieval technique is very useful in managing a large cartoon, trademark and digital map databases. Finally, a company logo that clearly identifies the copyright information can be embedded in cartoon and map images without serious perceptual loss. Experimental results are given to demonstrate the superior performance of TAWS. (15 Refs)
Subfile: C
Descriptors: copy protection; image processing; image retrieval; industrial property; security of data; visual databases; wavelet transforms
Identifiers: cartoon images; map images; blind digital watermarking; synthetic graphics; wavelet-based threshold-adaptive watermarking scheme; robust digital watermarks; invisible digital watermarks; graphical images; significant subbands; significant coefficients; perceptual integrity; compression; signal processing attacks; cast watermark; large cartoon database management; large **trademark database** management; large digital map database management; company logo; copyright information identification
Class Codes: C5260B (Computer vision and image processing techniques); C7250R (Information retrieval techniques); C6160S (Spatial and pictorial databases); C0230 (Economic, social and political aspects of computing)

15/5/2 (Item 1 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs

1395215 H.W. WILSON RECORD NUMBER: BAST96056414
Attomole protein characterization by capillary electrophoresis-mass spectrometry
Valaskovic, Gary A; Kelleher, Neil L; McLafferty, Fred W
Science v. 273 (Aug. 30 '96) p. 1199-202
DOCUMENT TYPE: Feature Article ISSN: 0036-8075 LANGUAGE: English

RECORD STATUS: Corrected or revised record

ABSTRACT: Electrospray ionization with an ultralow flow rate ([less than or equal]4 nanoliters per minute) was used to directly couple capillary electrophoresis with tandem mass spectrometry for the analysis and identification of biomolecules in mixtures. A Fourier transform mass spectrometer provided full spectra ([not greater than]30 kilodaltons) at a resolving power of [approximately equal to]60,000 for injections of 0.7 [times] 10-18 to 3 [times] 10-18 mole of 8- to 29-kilodalton proteins with errors of [not less than]1 dalton in molecular mass. Using a crude isolate from human blood, a **value** of 28,780.6 daltons (**calculated** , 28,780.4 daltons) was measured for carbonic anhydrase, representing 1 percent by weight of the protein in a single red blood cell. Dissociation of molecular ions from 9 [times] 10-18 mole of carbonic anhydrase gave nine sequence-specific fragment ions, more data than required for unique retrieval of this enzyme from the protein **database** . **Copyright** 1996 by the AAAS.

DESCRIPTORS: Proteins--Analysis; Capillary electrophoresis; Mass spectrometry;

15/5/3 (Item 2 from file: 99)

1153690 H.W. WILSON RECORD NUMBER: BAST94022258

Predictive force-field calculations for the equilibrium dimerization of isoprene

Kar, Mangalya; Lenz, Terry G; Vaughan, John D

The Journal of Physical Chemistry v. 98 (Mar. 3 '94) p. 2489-93
DOCUMENT TYPE: Feature Article ISSN: 0022-3654 LANGUAGE: English
RECORD STATUS: New record

ABSTRACT: The Diels-Alder dimerization of isoprene is an important reaction; dipentene (or racemic limonene), one of the products formed in this reaction, has major applications in the manufacture of polymers and adhesives. Dipentene also has various uses in the food and pharmaceutical industries. In the present work, the QCFF force field program was used to calculate gas-phase thermodynamic properties of the monomer (isoprene) and the dimers 1-methyl-5-(1-methylethenyl)cyclohexene (diprene) and 1-methyl-4-(1-methylethenyl)cyclohexene (dipentene) for the temperature range 298.15-1000 K. These QCFF- **calculated** thermodynamic **values** were compared, when possible, with corresponding values obtained experimentally or from other force field programs, and the agreement was found to be satisfactory. The QCFF values were further used to derive gas-phase equilibrium properties--DH0, DS0, DG0, and Kp--for the isoprene dimerization reaction at various temperatures. These computational results suggest that, based upon thermodynamics, diprene and dipentene are about equally favored dimerization products of isoprene and that reported experimental data reflect kinetic control of dipentene formation at lower temperatures. The equilibrium thermodynamics data for the isoprene dimerization reaction presented in this paper are felt to be sufficiently reliable that they can be utilized in the absence of any additional experimental data; the present work thus illustrates the power of predictive thermodynamic computational techniques in extending the thermochemical **database** . **Copyright** 1994, American Chemical Society.

DESCRIPTORS: Diels-Alder reaction; Isoprene; Quantum chemistry;

16/5/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

5399817 INSPEC Abstract Number: C9611-7330-293
Title: A collaborative image database "out of the box"
Author(s): Kruggel, F.; Horsch, A.; von Cramon, D.Y.
Author Affiliation: Max-Planck-Inst. of Cognitive Neurosci., Leipzig, Germany
Conference Title: Proceedings of the Fourth International Conference on Image Management and Communication (IMAC 95) Medical Imaging Service in a Network Environment p.278-84
Publisher: IEEE Comput. Soc. Press, Los Alamitos, CA, USA
Publication Date: 1996 Country of Publication: USA xvi+294 pp.
ISBN: 0 8186 7560 8 Material Identity Number: XX96-02861
U.S. Copyright Clearance Center Code: 0 8186 7560 8/96/$5.00
Conference Title: Proceedings of the Fourth International Conference on Image Management and Communication (IMAC 95)
Conference Sponsor: Div. Imaging Sci. & Inf. Syst.(ISIS) Center; Dept. Radiology, Georgetown Univ. Med. Center
Conference Date: 20-24 Aug. 1995 Conference Location: Oahu Island, HI, USA
Language: English Document Type: Conference Paper (PA)
Treatment: Practical (P)
Abstract: This paper presents the design and implementation of a distributed (image) **database** on a TCP/ **IP** network of heterogeneous machines. It is based on the tagged container idea: a dataset is treated as a **black box** and ragged with a description, which is stored in a freely searchable database. Using readily available public domain utilities with a minimum of "glue logic", this is a vendor-neutral, low-cost system. Furthermore, it supports the idea of collaboration by allowing multiple servers running under the policy of different departments. (11 Refs)
Subfile: C
Descriptors: distributed databases; medical image processing; transport protocols; visual databases
Identifiers: TCP/IP network; heterogeneous machines; distributed image database; collaborative image database; tagged container; multiple servers; clinical neuroscience
Class Codes: C7330 (Biology and medical computing); C6160S (Spatial and pictorial databases); C5260B (Computer vision and image processing techniques); C6160B (Distributed databases)

16/5/1 (Item 1 from file: 2)
DIALOG(R)File 2:INSPEC

5399817 INSPEC Abstract Number: C9611-7330-293
Title: A collaborative image database "out of the box"
Author(s): Kruggel, F.; Horsch, A.; von Cramon, D.Y.
Author Affiliation: Max-Planck-Inst. of Cognitive Neurosci., Leipzig, Germany
Conference Title: Proceedings of the Fourth International Conference on Image Management and Communication (IMAC 95) Medical Imaging Service in a Network Environment p.278-84
Publisher: IEEE Comput. Soc. Press, Los Alamitos, CA, USA
Publication Date: 1996 Country of Publication: USA xvi+294 pp.
ISBN: 0 8186 7560 8 Material Identity Number: XX96-02861
U.S. Copyright Clearance Center Code: 0 8186 7560 8/96/$5.00
Conference Title: Proceedings of the Fourth International Conference on Image Management and Communication (IMAC 95)
Conference Sponsor: Div. Imaging Sci. & Inf. Syst.(ISIS) Center; Dept. Radiology, Georgetown Univ. Med. Center
Conference Date: 20-24 Aug. 1995 Conference Location: Oahu Island, HI, USA
Language: English Document Type: Conference Paper (PA)
Treatment: Practical (P)
Abstract: This paper presents the design and implementation of a distributed (image) **database** on a TCP/. **IP** network of heterogeneous machines. It is based on the tagged container idea: a dataset is treated as a **black box** and ragged with a description, which is stored in a freely searchable database. Using readily available public domain utilities with a minimum of "glue logic", this is a vendor-neutral, low-cost system. Furthermore, it supports the idea of collaboration by allowing multiple servers running under the policy of different departments. (11 Refs)
Subfile: C
Descriptors: distributed databases; medical image processing; transport protocols; visual databases
Identifiers: TCP/IP network; heterogeneous machines; distributed image database; collaborative image database; tagged container; multiple servers; clinical neuroscience
Class Codes: C7330 (Biology and medical computing); C6160S (Spatial and pictorial databases); C5260B (Computer vision and image processing techniques); C6160B (Distributed databases)